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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,017	12/21/2001	Yeh-Hung Lai	83648MGB	5674

7590 08/29/2003
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EXAMINER

PRONE, JASON D

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 08/29/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,017

Applicant(s)

LAI ET AL.

Examiner

Jason Prone

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 19-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 & 5. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "second crack initiator", of claims 4, 6, and 9, a "first crack initiator with a curved edge", of claim 12, and "a cutter base having a curved relief and rake edge", of claims 13 and 14, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4, 6, and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The term "second crack initiator" is unclear because it is not mentioned in the specification nor shown in the figures. It is uncertain if the "second crack initiator" performs the same function and incorporates the same angles as the "first crack initiator".

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4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 1, the step of "disengaging the first crack initiator of the first cutter" is unclear. It is unclear from what the "first crack initiator" is being disengaged from.

In regards to claims 1-3, it is unclear where the steps, disclosed in claims 2 and 3, take place in respect to claim 1. For example, the step "continuing to propagate the crack through to the second side of the sheet material", of claim 2, would not take place after step (f) of claim 1. Therefore, the location of the steps from claims 2 and 3 with respect to the lettered steps of claim 1 should be disclosed.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6, 12, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wohrstein et al.

Wohrstein et al. discloses the same invention including a the method of engaging a first side of a sheet material with a first crack initiator having a high rake angle (31d),

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that the crack initiator extends from a first cutter base having a low rake angle (31c), simultaneously engaging a second side of the sheet material with a second cutter (32), generating a first crack in the first side of the sheet material with the first crack initiator (Fig. 4a), engaging the sheet material with the cutter base and further propagating the crack (Fig. 4a), disengaging the first crack initiator (Fig. 4), continuing to propagate the crack through to the second side of the sheet material (Fig. 4b), generating a second crack in the second side of the sheet material with the second cutter (32), propagating the first crack to intersect with the crack propagating from the second cutter (Fig. 4b), that the second cutter includes a second crack initiator (32d) extending from a second cutter base (32c), that the first crack initiator has a height that is greater than a thickness of a protective laminate (13) on the first side of the sheet material (Fig. 4a), that the second crack initiator has a height that is greater than a thickness of a protective laminate (14) on the second side of the sheet material (Fig. 4a), that the first crack initiator has a straight relief edge (Fig. 4), and that the cutter base has a straight rake edge and a straight relief edge (Fig. 4).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7-11, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woehrstein et al. in view of Takigawa et al. Woehrstein et al. discloses

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the invention but fails to disclose that the high rake angle of the first crack initiator is between 45° and 70° , that the low rake angle of the first cutter base is at least 15° less than the high rake angle of the first crack initiator, that the high rake angle of the second crack initiator is between 30° and 70° , that the crack initiator has a relief angle greater than 0° and not more than 30° , and that the first cutter base has a relief angle not more than 30° . Takigawa et al. teaches specific first and second crack initiator and first cutter base angles (Θ_1 and Θ_2). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide Wohrstein et al. with specific angles, as taught by Takigawa et al., to allow for a more precise cut.

It would have been an obvious matter of design choice to make the high rake angle of the first crack initiator between 45° and 70° , the low rake angle of the first cutter base at least 15° less than the high rake angle of the first crack initiator, the high rake angle of the second crack initiator between 30° and 70° , the crack initiator's relief angle greater than 0° and not more than 30° , and the first cutter base's relief angle not more than 30° , since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Culhane, Jr., Colvin, De Causse, Gross, Kindel, Shinozaki et al. ('857), Shinozaki et al. ('618), and Wakayama et al.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is 703-605-4287.

The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

JP
August 25, 2003


Allan N. Shoap
Supervisory Patent Examiner
Group 3700